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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,137	08/01/2003	Mohammad Athar Shah	199-0201US	3128

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/633,137	Applicant(s) SHAH ET AL.	
	Examiner Andy S. Rao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 9-24, 26, 29-34, 36, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 9-24, 26, 29-34, 36, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/13/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 9-24, 26, 29-34, 36, 39-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiu et al., (hereinafter referred to as “Chiu”).

Chiu disclose a method implementable on an encoder for adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded (Chiu: figure 3), comprising: encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder (Chiu: column 7, lines 10-20); encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder (Chiu: column 7, lines 40-50); assessing at least the first and second encoding parameters to determine whether the image is likely stationary (Chiu: column 9, lines 1-15), wherein the first and second encoding parameters comprise at least first and second quantization parameters (Chiu: column 9, lines 50-60); and if

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the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block (Chiu: column 8, lines 40-55), as in claim 1.

Regarding claim 2, Chiu discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Chiu: column 7, lines 30-35), as in the claim.

Regarding claim 3, Chiu discloses and second encoding parameters respectively comprise at least first and second motion vectors (Chiu: column 10, lines 25-30), as in the claim.

Regarding claim 4, Chiu discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero (Chiu: column 3, lines 50-65), as in the claim.

Regarding claim 6, Chiu discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds (Chiu: column 9, lines 50-60; column 10, lines 1-10), as in the claim.

Regarding claim 9, Chiu discloses wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time (Chiu: column 9, lines 1-10), as in the claim.

Regarding claim 10, Chiu discloses wherein adjusting the coding threshold comprises increasing the coding threshold (Chiu: column 6, lines 25-42), as in the claim.

Regarding claim 11, Chiu discloses further comprising: encoding, a third time prior to the first time, a third image representation of the block using third encoding parameters generated by

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the encoder; and assessing at least the first, second, and third encoding parameters to determine whether the image is likely stationary (Chiu: column 10, lines 10-20), as in the claim.

Regarding claim 12, Chiu discloses wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are interceded (Chiu: column 9, lines 1-15), as in the claim.

Chiu discloses a method implementable on an encoder for adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded (Chiu: figure 3), comprising: encoding, at a first time, a first image representation of the block using at least a first quantization parameter (Chiu: column 7, lines 25-30) and a first motion vector (Chiu: column 10, lines 29-31) generated by the encoder (Chiu: column 7, lines 10-20); encoding, at a second time later than the first time, a second image representation of the block using at least a second quantization parameter (Chiu: column 7, lines 25-30) and a second motion vector (Chiu: column 10, lines 29-31) generated by the encoder (Chui: column 7, lines 40-50); and adjusting the coding threshold in the encoder for at least a portion of the block (Chiu: column 8, lines 40-55) if the first and second motion vectors are substantially zero and if the first and second quantization parameters are respectively less than first and second quantization parameter thresholds (Chiu: column 9, lines 50-60), as in claim 13.

Regarding claim 14, Chiu discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Chiu: column 7, lines 30-35), as in the claim.

Regarding claim 15, Chiu discloses wherein the first and second quantization parameters are the same (Chiu: column 9, lines 50-60), as in the claim.

Regarding claim 16, Chiu discloses wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time (Chiu: column 9, lines 1-10), as in the claim.

Regarding claim 17, Chiu discloses wherein adjusting the coding threshold comprises increasing the coding threshold (Chiu: column 6, lines 25-42), as in the claim.

Regarding claims 18-19, Chiu discloses further comprising: encoding, a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and adjusting the coding threshold in the encoder (Chiu: column 10, lines 10-20), as in the claim.

Regarding claim 20, Chiu discloses encoding, at the first time, the first image representation of the block using intercoding (Chiu: column 9, lines 5-10); encoding, at the second time, the second image representation of the block using interceding (Chiu: column 10, lines 1-10); and adjusting the coding threshold in the encoder for at least a portion of the block if the first and second image representations are interceded (Chiu: column 8, lines 40-55), as in the claim.

Chiu discloses a method (Chiu: figure 3) implementable on a decoder capable of displaying a block of an image on a display (Chiu: column 9, lines 35-45), comprising: receiving from an encoder, at a first time, a first image representation of the block including first encoding parameters generated by the encoder (Chiu: column 7, lines 10-20); receiving from an encoder, at a second time later than the first time, a second image representation of the block including

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second encoding parameters generated by the encoder (Chiu: column 7, lines 40-50); assessing at the decoder whether the image is likely stationary using at least the first and second encoding parameters (Chiu: column 9, lines 1-15), wherein the first and second encoding parameters include at least first and second quantization parameters (Chiu: column 9, lines 50-60); and if the image is likely stationary, not updating at least a portion of the block on the display (Chiu: column 8, lines 60-65), as in claim 21.

Regarding claim 22, Chiu discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Chiu: column 7, lines 30-35), as in the claim.

Regarding claim 23, Chiu discloses and second encoding parameters respectively comprise at least first and second motion vectors (Chiu: column 10, lines 25-30), as in the claim.

Regarding claim 24, Chiu discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero (Chiu: column 3, lines 50-65), as in the claim.

Regarding claim 26, Chiu discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds (Chiu: column 9, lines 50-60; column 10, lines 1-10), as in the claim.

Regarding claim 29, Chiu discloses further comprising: receiving from the encoder (Chiu: 9, lines 35-45), a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and assessing at least the first,

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second, and third encoding parameters to determine whether the image is likely stationary (Chiu: column 10, lines 10-20), as in the claim.

Regarding claim 30, Chiu discloses wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are interceded (Chiu: column 9, lines 1-15), as in the claim.

Chiu discloses a method (Chiu: figure 3) implementable on an encoder capable of transmitting image information to a decoder (Chiu: column 9, lines 35-45), comprising: encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder (Chiu: column 7, lines 10-20); encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder (Chiu: column 7, lines 40-50); assessing at least the first and second encoding parameters to determine whether the image is likely stationary (Chiu: column 9, lines 1-15), wherein the first and second encoding parameters comprise at least first and second quantization parameters (Chiu: column 9, lines 50-60); and if the image is likely stationary, sending a no code signal to a decoder for at least a portion of the of the block (Chiu: column 8, lines 40-55), as in claim 31.

Regarding claim 32, Chiu discloses wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients (Chiu: column 7, lines 30-35), as in the claim.

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Regarding claim 33, Chiu discloses and second encoding parameters respectively comprise at least first and second motion vectors (Chiu: column 10, lines 25-30), as in the claim.

Regarding claim 34, Chiu discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero (Chiu: column 3, lines 50-65), as in the claim.

Regarding claim 36, Chiu discloses wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds (Chiu: column 9, lines 50-60; column 10, lines 1-10), as in the claim.

Regarding claim 39, Chiu discloses wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time (Chiu: column 9, lines 1-10), as in the claim.

Regarding claim 40, Chiu discloses wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded (Chiu: column 9, lines 1-15), as in the claim.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Park discloses a method and system for scene change detection. Li discloses a method

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of visual progressive coding. Au discloses a device, method, and digital video encoder for block-matching motion estimation.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
April 13, 2007

ANDY RAO
PRIMARY EXAMINER
